



SEQUENCE LISTING

<110> Brooks, Alan R.
Deng, Gary G.
Rubanyi, Gabor M.
Schering Aktiengesellschaft

<120> Estrogen-Regulated Unconventional Myosin-Related
Protein: Compositions and Methods of Use

<130> 015303-000310US

<140> US 09/803,126

<141> 2001-03-09

<150> US 60/188,488

<151> 2000-03-10

<160> 35

<170> PatentIn Ver. 2.1

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Ser Thr His Phe Pro Val Arg Val Ser Phe Gln Val Phe Leu Ala Arg
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Phe His Ala Leu Gly Ser Gly Arg Gln Lys Ala Ala Ser Asp Gln Glu
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Arg Cys Gly Ala Ile Leu Ser Glu Val Leu Gly Ala Glu Ser Pro Leu
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Gln Leu Glu Gln Leu Trp Ala Gln Arg Arg Ser Gln Ala Leu Leu Thr
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 related protein variant 1 (hMRP1)

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Thr Leu Ser Ala Glu Arg Arg Cys Leu Thr Gln Pro Val Glu Asp Gln
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Gly Val Ser Thr Gln Leu Leu Ala Pro Ser Gly Ser Val Cys Phe Ser
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Tyr Thr Gly Thr Pro Trp Lys Leu Phe Leu Arg Lys Glu Val Phe Tyr
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Pro Arg Glu Asn Phe Ser His Pro Tyr Tyr Leu Arg Leu Leu Cys Glu
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Gln Ile Leu Arg Asp Thr Phe Ser Glu Ser Cys Ile Arg Ile Ser Gln
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<213> Homo sapiens

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protein variant 2 (hMRP2)

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<211> 21
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Signature
sequence 1 conserved between mouse and human MRP
genes, consensus peptides

<400> 8

Pro Trp Lys Leu Phe Leu Arg Lys Glu Val Phe Tyr Pro Arg Glu Asn
1 5 10 15

Phe Ser His Pro Tyr
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<210> 9
<211> 18
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Signature
sequence 2 conserved between mouse and human MRP
genes, consensus peptides

<400> 9

Lys Lys Arg Ile Val Val Ala Ala Arg Asp Asn Trp Ala Asn Tyr Phe
1 5 10 15

Ser Arg

<210> 10
<211> 15
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Signature
sequence 3 conserved between mouse and human MRP
genes, consensus peptides

<400> 10

Lys Asp Ser Gly Tyr Val Ile Ala Leu Arg Ser Tyr Ile Thr Asp
1 5 10 15

<210> 11
 <211> 18
 <212> PRT
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<220>

<223> Description of Artificial Sequence: Signature
 sequence 4 conserved between mouse and human MRP
 genes, consensus peptides

<400> 11

Leu Glu Pro Gly Trp Gln Phe Gly Ser Ala Gly Gly Arg Ser Gly Leu
 1 5 10 15

Phe Pro

<210> 12
 <211> 407
 <212> PRT
 <213> Mus sp.

<220>

<223> partial amino acid sequence for mouse myosin
 related protein (mMRP)

<400> 12

Met Tyr Gln Ser Arg Pro Gly Pro Val Ala Val Pro Val Gln Pro Thr
 1 5 10 15

Arg Pro Ile Lys Thr Phe Gln Lys Lys Asn Asp Pro Lys Asp Glu Ala
 20 25 30

Leu Ala Lys Leu Gly Ile Asn Gly Val His Leu Pro Leu Ser Thr Ser
 35 40 45

Pro Asn Gln Gly Lys Ser Ser Pro Pro Ala Val Val Pro Arg Pro Lys
 50 55 60

Ala Arg Pro Arg Leu Glu Pro Ser Leu Ser Ile Gln Glu Lys Gln Gly
 65 70 75 80

Pro Leu Arg Asp Leu Phe Gly Pro Cys Ser Pro Asn Pro Pro Thr Ala
 85 90 95

Pro Ala Pro Pro Pro Pro Pro Ala Leu Pro Pro Pro Leu Ser Gly Glu
 100 105 110

Pro Lys Thr Pro Ser Val Glu Ser His Ala Leu Thr Glu Pro Met Glu
 115 120 125

Asp Lys Asn Ile Ser Thr Lys Leu Leu Val Pro Ser Gly Ser Val Cys
 130 135 140

Phe Ser Tyr Ala Asn Ala Pro Trp Lys Leu Phe Leu Arg Lys Glu Val
 145 150 155 160

Phe Tyr Pro Arg Glu Asn Phe Ser His Pro Tyr Cys Leu Ser Leu Leu
 165 170 175

Cys Gln Gln Ile Leu Arg Asp Thr Phe Thr Glu Ser Cys Thr Arg Ile
 180 185 190
 Ser Gln Asp Glu Arg His Lys Met Lys Gly Leu Leu Gly Asp Leu Glu
 195 200 205
 Val Ser Leu Glu Thr Leu Asp Ile Val Glu Asp Ser Ile Lys Lys Arg
 210 215 220
 Ile Val Val Ala Ala Arg Asp Asn Trp Ala Asn Tyr Phe Ser Arg Ile
 225 230 235 240
 Phe Pro Val Ser Gly Glu Ser Gly Ser Asp Val Gln Leu Leu Gly Val
 245 250 255
 Ser His Arg Gly Leu Arg Leu Leu Lys Val Thr Gln Ser Pro Ser Phe
 260 265 270
 His Leu Asp Gln Leu Lys Thr Leu Cys Ser Tyr Ser Tyr Ala Glu Val
 275 280 285
 Leu Thr Val Gln Cys Arg Gly Arg Ser Thr Leu Glu Leu Ser Leu Lys
 290 295 300
 Asn Glu Gln Leu Ile Leu His Thr Ala Trp Ala Arg Ala Ile Lys Ala
 305 310 315 320
 Met Val Asp Leu Phe Leu Ser Glu Leu Arg Lys Asp Ser Gly Tyr Val
 325 330 335
 Ile Ala Leu Arg Ser Tyr Ile Thr Asp Asp Asn Ser Leu Leu Ser Phe
 340 345 350
 His Arg Gly Asp Leu Ile Arg Leu Leu Pro Val Thr Ala Leu Glu Pro
 355 360 365
 Gly Trp Gln Phe Gly Ser Ala Gly Gly Arg Ser Gly Leu Phe Pro Asp
 370 375 380
 Asp Val Val Gln Pro Ala Ala Ala Pro Asp Leu Ser Phe Ser Leu Gly
 385 390 395 400
 Lys Arg Asn Ser Trp Gln Arg
 405

<210> 13
 <211> 405
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Partial amino acid sequence for human myosin
 related protein variant 1 (hMRP1)

<400> 13
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 20 25 30

Leu Ala Lys Leu Gly Ile Asn Gly Ala His Ser Ser Pro Pro Met Leu
 35 40 45
 Ser Pro Ser Pro Gly Lys Gly Pro Pro Pro Ala Val Ala Pro Arg Pro
 50 55 60
 Lys Ala Pro Leu Gln Leu Gly Pro Ser Ser Ser Ile Lys Glu Lys Gln
 65 70 75 80
 Gly Pro Leu Leu Asp Leu Phe Gly Gln Lys Leu Pro Ile Ala His Thr
 85 90 95
 Pro Pro Pro Pro Pro Ala Pro Pro Leu Pro Leu Pro Glu Asp Pro Gly
 100 105 110
 Thr Leu Ser Ala Glu Arg Arg Cys Leu Thr Gln Pro Val Glu Asp Gln
 115 120 125
 Gly Val Ser Thr Gln Leu Leu Ala Pro Ser Gly Ser Val Cys Phe Ser
 130 135 140
 Tyr Thr Gly Thr Pro Trp Lys Leu Phe Leu Arg Lys Glu Val Phe Tyr
 145 150 155 160
 Pro Arg Glu Asn Phe Ser His Pro Tyr Tyr Leu Arg Leu Leu Cys Glu
 165 170 175
 Gln Ile Leu Arg Asp Thr Phe Ser Glu Ser Cys Ile Arg Ile Ser Gln
 180 185 190
 Asn Glu Arg Arg Lys Met Lys Asp Leu Leu Gly Gly Leu Glu Val Asp
 195 200 205
 Leu Asp Ser Leu Thr Thr Thr Glu Asp Ser Val Lys Lys Arg Ile Val
 210 215 220
 Val Ala Ala Arg Asp Asn Trp Ala Asn Tyr Phe Ser Arg Phe Phe Pro
 225 230 235 240
 Val Ser Gly Glu Ser Gly Ser Asp Val Gln Leu Leu Ala Val Ser His
 245 250 255
 Arg Gly Leu Arg Leu Leu Lys Val Thr Gln Gly Pro Gly Leu Arg Pro
 260 265 270
 Asp Gln Leu Lys Ile Leu Cys Ser Tyr Ser Phe Ala Glu Val Leu Gly
 275 280 285
 Val Glu Cys Arg Gly Gly Ser Thr Leu Glu Leu Ser Leu Lys Ser Glu
 290 295 300
 Gln Leu Val Leu His Thr Ala Arg Ala Arg Ala Ile Glu Ala Leu Val
 305 310 315 320
 Glu Leu Phe Leu Asn Glu Leu Lys Lys Asp Ser Gly Tyr Val Ile Ala
 325 330 335
 Leu Arg Ser Tyr Ile Thr Asp Asn Cys Ser Leu Leu Ser Phe His Arg
 340 345 350

Gly Asp Leu Ile Lys Leu Leu Pro Val Ala Thr Leu Glu Pro Gly Trp
355 360 365

Gln Phe Gly Ser Ala Gly Gly Arg Ser Gly Leu Phe Pro Ala Asp Ile
370 375 380

Val Gln Pro Ala Ala Ala Pro Asp Phe Ser Phe Ser Lys Glu Gln Arg
385 390 395 400

Ser Gly Trp His Lys
405

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<220>
<223> Description of Artificial Sequence: Consensus
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<400> 14
Met Tyr Gln Ser Arg Pro Gly Pro Val
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<210> 15
<211> 4
<212> PRT
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<220>
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<400> 15
Val Pro Val Gln
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<210> 16
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
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<400> 16
Asp Pro Lys Asp Glu Ala Leu Ala Lys Leu Gly Ile Asn Gly
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<210> 17
<211> 4
<212> PRT
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<223> Description of Artificial Sequence: Consensus
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<400> 17
Pro Pro Ala Val
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<210> 18
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: Consensus
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<400> 18
Pro Arg Pro Lys Ala
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<210> 19
<211> 6
<212> PRT
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<220>
<223> Description of Artificial Sequence: Consensus
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<400> 19
Glu Lys Gln Gly Pro Leu
  1           5

<210> 20
<211> 4
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<220>
<223> Description of Artificial Sequence: Consensus
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<400> 20
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<210> 21
<211> 6
<212> PRT
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<220>
<223> Description of Artificial Sequence: Consensus
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<400> 21
Pro Pro Pro Pro Pro Ala
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<210> 22
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 22
Pro Ser Gly Ser Val Cys Phe Ser Tyr
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<210> 23
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 23
Gln Ile Leu Arg Asp Thr Phe
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<210> 24
<211> 4
<212> PRT
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<220>
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<400> 24
Arg Ile Ser Gln
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<210> 25
 <211> 14
 <212> PRT
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 <220>
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 <400> 25
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<210> 26
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 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 26
 Val Ser His Arg Gly Leu Arg Leu Leu Lys Val Thr Gln
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<210> 27
 <211> 4
 <212> PRT
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<220>
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 Peptide

<400> 27
 Asp Gln Leu Lys
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<210> 28
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Consensus
 Peptide

<400> 28
 Leu Cys Ser Tyr Ser
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<210> 29
<211> 4
<212> PRT
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<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 29
Ala Glu Val Leu
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<210> 30
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<212> PRT
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<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 30
Ser Thr Leu Glu Leu Ser Leu Lys
1 5

<210> 31
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 31
Leu His Thr Ala
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<210> 32
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 32
Ala Arg Ala Ile
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<210> 33
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 33
Ser Leu Leu Ser Phe His Arg Gly Asp Leu Ile
1 5 10

<210> 34
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 34
Leu Leu Pro Val
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<210> 35
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
Peptide

<400> 35
Val Gln Pro Ala Ala Ala Pro Asp
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